Population dynamics

Loggerhead Sea Turtle

Total estimated nesting in the Southeast is approximately 50,000 to 70,000 nests per year (National Marine Fisheries Service and U.S. Fish and Wildlife Service 1991b). In 1998, there were over 80,000 nests in Florida alone. From a global perspective, the southeastern U.S. nesting aggregation is of paramount importance to the survival of the species and is second in size only to that which nests on islands in the Arabian Sea off Oman (Ross 1982, Ehrhart 1989, National Marine Fisheries Service and U.S. Fish and Wildlife Service 1991b). The status of the Oman colony has not been evaluated recently, but its location in a part of the world that is vulnerable to disruptive events (e.g., political upheavals, wars, catastrophic oil spills) is cause for considerable concern (Meylan *et al.* 1995). The loggerhead nesting aggregations in Oman, the southeastern U.S., and Australia account for about 88 percent of nesting worldwide (National Marine Fisheries Service and U.S. Fish and Wildlife Service 1991b). About 80 percent of loggerhead nesting in the southeastern U.S. occurs in six Florida counties (Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward Counties) (National Marine Fisheries Service and U.S. Fish and Wildlife Service 1991b).

Green Sea Turtle

About 200 to 1,100 females are estimated to nest on beaches in the continental U.S. In the U.S. Pacific, over 90 percent of nesting throughout the Hawaiian archipelago occurs at the French Frigate Shoals, where about 200 to 700 females nest each year. Elsewhere in the U.S. Pacific, nesting takes place at scattered locations in the Commonwealth of the Northern Marianas, Guam, and American Samoa. In the western Pacific, the largest green turtle nesting aggregation in the world occurs on Raine Island, Australia, where thousands of females nest nightly in an average nesting season. In the Indian Ocean, major nesting beaches occur in Oman where 6,000 to 20,000 females are reported to nest annually.

Leatherback Sea Turtle

Recent estimates of global nesting populations indicate 26,000 to 43,000 nesting females annually (Spotila *et al.* 1996). The largest nesting populations at present occur in the western Atlantic in French Guiana (4,500 to 7,500 females nesting/year) and Colombia (estimated several thousand nests annually), and in the western Pacific in West Papua (formerly Irian Jaya) and Indonesia (about 600 to 650 females nesting/year). In the United States, small nesting populations occur on the Florida east coast (35 females/year), Sandy Point, U.S. Virgin Islands (50 to 100 females/year), and Puerto Rico (30 to 90 females/year).

Hawksbill Sea Turtle

About 15,000 females are estimated to nest each year throughout the world with the Caribbean accounting for 20 to 30 percent of the world's hawksbill population. Only five regional populations remain with more than 1,000 females nesting annually (Seychelles, Mexico,

Indonesia, and two in Australia). Mexico is now the most important region for hawksbills in the Caribbean with 3,000 to 4,500 nests/year. Other significant but smaller populations in the Caribbean still occur in Martinique, Jamaica, Guatemala, Nicaragua, Grenada, Dominican Republic, Turks and Caicos Islands, Cuba, Puerto Rico, and U.S. Virgin Islands. In the U.S. Caribbean, about 100 to 350 nests/year are laid on Mona Island, Puerto Rico, and 60 to 120 nests/year on Buck Island Reef National Monument, U.S. Virgin Islands. In the U.S. Pacific, hawksbills nest only on main island beaches in Hawaii, primarily along the east coast of the island of Hawaii. Hawksbill nesting has also been documented in American Samoa and Guam.

Status and distribution

Loggerhead Sea Turtle

Genetic research involving analysis of mitochondrial DNA has identified five different loggerhead subpopulations/nesting aggregations in the western North Atlantic: (1) the Northern Subpopulation occurring from North Carolina to around Cape Canaveral, Florida (about 29° N.); (2) South Florida Subpopulation occurring from about 29° N. on Florida's east coast to Sarasota on Florida's west coast; (3) Dry Tortugas, Florida, Subpopulation, (4) Northwest Florida Subpopulation occurring at Eglin Air Force Base and the beaches near Panama City; and (5) Yucatán Subpopulation occurring on the eastern Yucatán Peninsula, Mexico (Bowen 1994, 1995; Bowen *et al.* 1993; Encalada *et al.* 1998). These data indicate that gene flow between these five regions is very low. If nesting females are extirpated from one of these regions, regional dispersal will not be sufficient to replenish the depleted nesting subpopulation. The Northern Subpopulation has declined substantially since the early 1970s, but most of that decline occurred prior to 1979. No significant trend has been detected in recent years (Turtle Expert Working Group 1998, 2000). Adult loggerheads of the South Florida Subpopulation have shown significant increases over the last 25 years, indicating that the population is recovering, although a trend could not be detected from the State of Florida's Index Nesting Beach Survey program from 1989 to 1998. Nesting surveys in the Dry Tortugas, Northwest Florida, and Yucatán Subpopulations have been too irregular to date to allow for a meaningful trend analysis (Turtle Expert Working Group 1998, 2000).

Threats include incidental take from channel dredging and commercial trawling, longline, and gill net fisheries; loss or degradation of nesting habitat from coastal development and beach armoring; disorientation of hatchlings by beachfront lighting; excessive nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; watercraft strikes; and disease. There is particular concern about the extensive incidental take of juvenile loggerheads in the eastern Atlantic by longline fishing vessels from several countries.

Green Sea Turtle

Total population estimates for the green turtle are unavailable, and trends based on nesting data are difficult to assess because of large annual fluctuations in numbers of nesting females. For

instance, in Florida, where the majority of green turtle nesting in the southeastern U.S. occurs, estimates range from 200 to 1,100 females nesting annually. Populations in Surinam and Tortuguero, Costa Rica, may be stable, but there is insufficient data for other areas to confirm a trend.

A major factor contributing to the green turtle's decline worldwide is commercial harvest for eggs and food. Fibropapillomatosis, a disease of sea turtles characterized by the development of multiple tumors on the skin and internal organs, is also a mortality factor and has seriously impacted green turtle populations in Florida, Hawaii, and other parts of the world. The tumors interfere with swimming, eating, breathing, vision, and reproduction, and turtles with heavy tumor burdens may die. Other threats include loss or degradation of nesting habitat from coastal development and beach armoring; disorientation of hatchlings by beachfront lighting; excessive nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; watercraft strikes; and incidental take from channel dredging and commercial fishing operations.

Leatherback Sea Turtle

Declines in leatherback nesting have occurred over the last two decades along the Pacific coasts of Mexico and Costa Rica. The Mexican leatherback nesting population, once considered to be the world's largest leatherback nesting population (65 percent of worldwide population), is now less than one percent of its estimated size in 1980. Spotila *et al.* (1996) recently estimated the number of leatherback sea turtles nesting on 28 beaches throughout the world from the literature and from communications with investigators studying those beaches. The estimated worldwide population of leatherbacks in 1995 was about 34,500 females on these beaches with a lower limit of about 26,200 and an upper limit of about 42,900. This is less than one third the 1980 estimate of 115,000. Leatherbacks are rare in the Indian Ocean and in very low numbers in the western Pacific Ocean. The largest population is in the western Atlantic. Using an age-based demographic model, Spotila *et al.* determined that leatherback populations in the Indian Ocean and western Pacific Ocean cannot withstand even moderate levels of adult mortality and that even the Atlantic populations are being exploited at a rate that cannot be sustained. They concluded that leatherbacks are on the road to extinction and further population declines can be expected unless we take action to reduce adult mortality and increase survival of eggs and hatchlings.

The crash of the Pacific leatherback population is believed primarily to be the result of exploitation by humans for the eggs and meat, as well as incidental take in numerous commercial fisheries of the Pacific. Other factors threatening leatherbacks globally include loss or degradation of nesting habitat from coastal development; disorientation of hatchlings by beachfront lighting; excessive nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; and watercraft strikes.

Hawksbill Sea Turtle

The hawksbill sea turtle has experienced global population declines of 80 percent or more during the past century and continued declines are projected (Meylan and Donnelly 1999). Most populations are declining, depleted, or remnants of larger aggregations. Hawksbills were previously abundant, as evidenced by high-density nesting at a few remaining sites and by trade statistics. The decline of this species is primarily due to human exploitation for tortoiseshell. While the legal hawksbill shell trade ended when Japan agreed to stop importing shell in 1993, a significant illegal trade continues. It is believed that individual hawksbill populations around the world will continue to disappear under the current regime of exploitation for eggs, meat, and tortoiseshell, loss of nesting and foraging habitat, incidental capture in fishing gear, ingestion of and entanglement in marine debris, oil pollution, and boat collisions. Hawksbills are closely associated with coral reefs, one of the most endangered of all marine ecosystem types.

Analysis of the species/critical habitat likely to be affected

The preferred alternative calls for using staging areas 1 and 1A, which are located north of the project site approximately 0.6 mile. Both areas are behind the secondary dune. The contractor will transport material from the staging areas using an existing road west of the staging areas, not the beach. The material will be moved to the beach adjacent to the north jetty. The Corps will flag a work corridor on the beach in which the contractor will be restricted when moving material.

The proposed action (moving material on the beach) has the potential to adversely affect nesting females, nests, and hatchlings within the marked work corridor. Potential effects include destruction of nests deposited within the boundaries of the work corridor, harassment in the form of disturbing or interfering with female turtles attempting to nest within the work corridor or on the adjacent beach as a result of construction activities, or disorientation of hatchling turtles on the adjacent beach as they emerge from the nest and crawl to the water.

Critical habitat has not been designated in the continental United States; therefore, the proposed action would not result in an adverse modification.

ENVIRONMENTAL BASELINE

Status of the species within the action area

Loggerhead Sea Turtle

The loggerhead sea turtle nesting and hatching season for Brevard County extends from March 15 through November 30. Incubation ranges from about 45 to 95 days.

The Canaveral Air Force Station has collected nesting data on their reach of beach for many years. Within 1,000 meters north of the north jetty, only loggerhead turtles were recorded

nesting. In 1998, there were 25 nests, 43 in 1999, 36 in 2000 and 31 in 2001. There was no information as to the number of nests laid up against the north jetty, if any.

Green Sea Turtle

The green sea turtle nesting and hatching season for Brevard County extends from May 1 through November 30. Incubation ranges from about 45 to 75 days.

Leatherback Sea Turtle

The leatherback sea turtle nesting and hatching season for Brevard County extends from February 15 through November 15. Incubation ranges from about 55 to 75 days.

Hawksbill Sea Turtle

The hawksbill sea turtle nesting and hatching season for Brevard County extends from June 1 through December 31. Incubation lasts about 60 days.

FACTORS AFFECTING THE SPECIES ENVIRONMENT WITHIN THE ACTION AREA

EFFECTS OF THE ACTION

Factors to be considered

While not actually discussed in the draft EA, nighttime work appears to be a possibility; however, it appears to be at the discretion of the contractor and not a requirement placed upon the contractor by the Corps. We request that the Corps not permit nighttime activity at all. All work should be done during daylight hours only. This will significantly minimize adverse effects on nesting sea turtles and hatchlings.

The proposed staging areas will not directly adversely affect nesting sea turtles. The staging areas are located behind the primary dune. However, it is possible that a nest may be deposited within the work corridor (width to be identified) just north of and adjacent to the north jetty. The Corps has agreed to relocate these nests. Nests laid within a 500-foot area north of the work corridor will be marked for avoidance. These nests will not be relocated.

Analyses for effects of the action

Direct Effects

The proposed jetty construction activities during the nesting season may cause increased loss of eggs and hatchlings. This project could result in the loss of sea turtles through disruption of adult nesting activity and by burial or crushing of nests or hatchlings. While a nest monitoring and egg relocation program would reduce these impacts, nests may be inadvertently missed (when crawls are obscured by rainfall, wind, and/or tides) or misidentified as false crawls during

daily patrols. In addition, nests may be destroyed by operations at night prior to beach patrols being performed. Even under the best of conditions, about 7 percent of the nests can be misidentified as false crawls by experienced sea turtle nest surveyors (Schroeder 1994).

1. Egg and hatchling mortality
Nests that are deposited within the work corridor just north of and adjacent to the north jetty may be crushed by heavy equipment. Also, hatchlings that emerge from a nest in and adjacent to the work corridor may be injured or killed by equipment or trapped inside vehicle tracks.

2. Nest relocation
Besides the potential for missing nests during a nest relocation program, there is a potential for eggs to be damaged by their movement, particularly if eggs are not relocated within 12 hours of deposition (Limpus *et al.* 1979). Nest relocation can have adverse impacts on incubation temperature (and hence sex ratios), gas exchange parameters, hydric environment of nests, hatching success, and hatchling emergence (Limpus *et al.* 1979, Ackerman 1980, Parmenter 1980, Spotila *et al.* 1983, McGehee 1990). Relocating nests into sands deficient in oxygen or moisture can result in mortality, morbidity, and reduced behavioral competence of hatchlings. Water availability is known to influence the incubation environment of the embryos and hatchlings of turtles with flexible-shelled eggs, which has been shown to affect nitrogen excretion (Packard *et al.* 1984), mobilization of calcium (Packard and Packard 1986), mobilization of yolk nutrients (Packard *et al.* 1985), hatchling size (Packard *et al.* 1981, McGehee 1990), energy reserves in the yolk at hatching (Packard *et al.* 1988), and locomotory ability of hatchlings (Miller *et al.* 1987).

Comparisons of hatching success between relocated and *in situ* nests have noted significant variation ranging from a 21 percent decrease to a 9 percent increase for relocated nests (Florida Department of Environmental Protection, unpublished data). Comparisons of emergence success between relocated and *in situ* nests have also noted significant variation ranging from a 23 percent decrease to a 5 percent increase for relocated nests (Florida Department of Environmental Protection, unpublished data). A 1994 Florida Department of Environmental Protection study of hatching and emergence success of *in situ* and relocated nests at seven sites in Florida found that hatching success was lower for relocated nests in five of seven cases with an average decrease for all seven sites of 5.01 percent (range = 7.19 percent increase to 16.31 percent decrease). Emergence success was lower for relocated nests in all seven cases by an average of 11.67 percent (range = 3.6 to 23.36 percent) (Meylan 1995).

3. Equipment
The placement and use of heavy machinery on the beach during a construction project may also have adverse effects on sea turtles. They can create barriers to nesting females emerging from the surf and crawling up the beach, causing a higher incidence of false crawls and unnecessary energy expenditure.

4. Artificial lighting
Visual cues are the primary sea-finding mechanism for hatchling sea turtles (Mrosovsky and Carr 1967, Mrosovsky and Shettleworth 1968, Dickerson and Nelson 1989, Witherington and

Bjorndal 1991). When artificial lighting is present on or near the beach, it can misdirect hatchlings once they emerge from their nests and prevent them from reaching the ocean (Philibosian 1976; Mann 1977; Florida Department of Environmental Protection, unpublished data). In addition, a significant reduction in sea turtle nesting activity has been documented on beaches illuminated with artificial lights (Witherington 1992). Therefore, construction lights along or adjacent to a project beach may deter females from coming ashore to nest, misdirect females trying to return to the surf after a nesting event, and misdirect emergent hatchlings from adjacent non-project beaches. Any source of bright lighting can profoundly affect the orientation of hatchlings, both during the crawl from the beach to the ocean and once they begin swimming offshore.

5. Entrapment/physical obstruction
Adult females approaching the nesting beach may encounter the jetty structure and abort nesting activities for that night and/or move to another section of beach to nest. The jetty could confuse or misorient nesting or hatchling turtles and prolong their time on the beach, making them vulnerable to predation, exhaustion, or dessication.

Indirect Effects

The extension of the existing jetty has the potential to further attract and concentrate predatory fishes and provide more perching spots for predatory birds, resulting in higher probabilities of hatchling predation as hatchlings enter the ocean.

Species' response to a proposed action

Other than the work corridor just north of and adjacent to the north jetty, there will be no other beach disturbance. It is possible that a female turtle coming on the beach to nest inside the work corridor may return to the ocean without excavating a nest if she contacts equipment on the beach. Since we have requested that no nighttime activity occur, lights will not be a problem for adult or hatchling turtles.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The Service is not aware of any cumulative effects in the project area.

CONCLUSION

After reviewing the current status of the above identified sea turtles, the environmental baseline for the action area, the effects of the proposed beach nourishment, and the cumulative effects, it is the Service's biological opinion that the beach nourishment project, as proposed, is not likely

to jeopardize the continued existence of the loggerhead, green, hawksbill, and leatherback sea turtles No critical habitat has been designated for sea turtles in the continental United States; therefore, none will be affected.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered or threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the Corps of Engineers so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps must report the progress of the action and its impacts on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE

The Service has reviewed the biological information for these species, information presented by the Corps, and other available information relevant to this action, and based on our review, incidental take in the form of harm or harass is anticipated for all loggerhead, green, leatherback, and hawksbill sea turtles that may nest in, or their hatchlings that may occur in, the work corridor adjacent to the north jetty.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species. Critical habitat has not been designated in the project area; therefore, the project will not result in destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the loggerhead, green, leatherback, and hawksbill sea turtles.

1) The Corps will require the contractor to mark and avoid all nests laid within a 500-foot area north of the work corridor adjacent to the north jetty. All nests laid within the work corridor just north of and adjacent to the north jetty will be relocated by a qualified and permitted biologist.

2) The contractor will not conduct nighttime activities at the staging areas, the work corridor adjacent to the north jetty or on the north jetty.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1) The contractor will flag the work corridor just north of and adjacent to the north jetty, and notify the Corps and the Service that it has been accomplished prior to initiating work. The contractor shall submit to the Corps and Service an aerial photograph outlining the work corridor for our review and possible site inspection. The size of the work corridor should be restricted to the absolute minimum necessary to insure worker safety. All work vehicles, storage of equipment, and moving material to the north jetty shall only occur in this work corridor.

2) From March 1 through November 30, construction activities must be conducted during daylight hours only to avoid encountering nesting females and emerging hatchling sea turtles. Construction activities must not occur in any location prior to completion of the necessary sea turtle protection measures outlined below. The Corps will stipulate in the contract that no nighttime activity, including the use of artificial lighting, is to occur relative to this project, including the staging areas, work corridor, and the jetty.

3) Daily early morning surveys for sea turtle nests will be required if any portion of the jetty construction project occurs during the period from March 1 through November 30. No construction activity may commence until completion of the sea turtle nesting survey each day.

> 3a) Nesting surveys must be initiated 65 days prior to jetty construction activities or by March 1, whichever is later. Nesting surveys must continue through the end of the project or through September 30, whichever is earlier.
>
> 3b) If nests are deposited within the work corridor just north of and adjacent to the north jetty, and area where they may be affected by construction activities, eggs must be relocated per the following requirements.

i) Nesting surveys and egg relocations will only be conducted by personnel with prior experience and training in nesting survey and egg relocation procedures. Surveyors must have a valid Florida Fish and Wildlife Conservation Commission permit. Nesting surveys must be conducted daily between sunrise and 9 a.m. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures.

ii) Only those nests that may be affected by construction activities will be relocated. Nests requiring relocation must be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Nest relocations in association with construction activities must cease when construction activities no longer threaten nests.

3c) If nests are deposited within a 500-foot area north of the work corridor, they must be marked and left in place unless other factors threaten the success of the nest. Any nests left in the vicinity of the jetty construction area must be clearly marked. Nests will be marked and the actual location of the clutch determined. A circle with a radius of 10 feet, centered at the clutch, will be marked by stake and survey tape or string. No construction activities will enter this circle and no adjacent construction that might directly or indirectly disturb the area within the staked circle will be allowed.

SOUTHEASTERN BEACH MICE

STATUS OF THE SPECIES

The old field mouse (*Peromyscus polionotus*) is distributed throughout northeastern Mississippi, Alabama, Georgia, South Carolina and Florida. Certain subspecies of the oldfield mouse occur on beaches and dunes of the Atlantic coast of Florida and the Gulf coast of Alabama and Florida, and are collectively known as "beach mice". These dune dwelling mice are distinctly paler than inland populations and have been classified into eight subspecies.

The southeastern beach mouse (*P. p. niveiventris*) is classified as threatened. This species is slightly darker than the Anastasia beach mouse (*P. p. phasma*). The original distribution of the southeastern beach mouse was from Ponce Inlet, Volusia County, southward to Hollywood, Broward County, and possibly as far south as Miami in Dade County. It is currently restricted to Volusia, Brevard, and St. Lucie Counties. Formerly, this subspecies occurred along about 175 miles of Florida's southeast coast; it now occupies about 50 miles, a significant reduction. This species is found in coastal dunes, the most seaward vegetation typically consists of sea oats, dune panic grass, railroad vine, beach morning glory, and camphor weed. Further landward, vegetation is more diverse, including beach tea, prickly pear cactus, saw palmetto, wax myrtle, and sea grape.

This subspecies use both beach dunes and inland areas of scrub vegetation. The southeastern beach mouse may use up to 20 burrows, usually located on the sloping side of a dune. Each burrow consists of an entrance tunnel, nest chamber, and escape tunnel. Beach mice are nocturnal, with most activity occurring on moonlit nights and less activity under stormy conditions or moonless nights.

Reproduction may occur throughout the year, but peak population levels usually occur in winter. Breeding activity was most evident from November though early January. There appears to be a high turnover in the population. Captive beach mice are capable of producing 80 or more young in their lifetime, with litters produced as often as 26-day intervals.

Beach mice typically feed on seeds of sea oats and dune panic grass and also eat small invertebrates. Potential predators include snakes, bobcats, foxes, raccoons, skunks, owls, and feral cats and dogs. House mice may compete with the southeastern beach.

ENVIRONMENTAL BASELINE

Status of the Species in the Action Area

The southeastern beach mouse is found along the entire reach of coastline on CCAFS, in addition to the Kennedy Space Center and Cape Canaveral National Seashore. The known distribution is a result of cursory surveys and intermittent trapping involving different construction projects. There has not been a systematic trapping study done in order to determine the status throughout its range on these Federal lands.

To determine presence or absence of this species in the project area specifically the staging areas, a trapping program was undertaken, with positive results. Beach mice were found in all staging areas, 1, 1A, 2, and 3. In staging area 1, 10 animals were trapped, 1 in area 1A, 3 in area 2 and 2 in area 3.

Staging area 1 is 2.5 acres, and about 50 percent of this staging area includes the north slope of the Trident berm(45 degree slope). The remainder had a disturbed appearance that may be attributed to past clearing activities or storm-related overwash that salt-killed less resistant vegetation. Most of the site is dominated by grasses intermixed with sandy openings. Staging area 1A is 0.98 acre, and is dominated by grasses, with a tall patch of Brazilian pepper. Both areas are classified as disturbed coastal dune/strand habitat. Staging areas 2 and 3 are 4.34 and 3.41 acres respectively, and are comprised by relatively dense vegetation dominated by Brazilian pepper; although, the Brazilian pepper that dominated the west side of the area 2 and the southeast section of area 3 was interspersed with densities of sea grape coin vine. The eastern side of area 2 has some larger open areas dominated by dune/marsh grasses, saw palmetto, sea grape, and buckthorn. Both areas 2 and 3 are classified as disturbed coastal dune/strand habitat.

Mice were also captured within the habitats just north of the north jetty.

FACTORS AFFECTING THE SPECIES ENVIRONMENT WITHIN THE ACTION AREA

EFFECTS OF THE ACTION

Factors to be considered

Direct Effects

The project will result in the inadvertent injury or death of southeastern beach mice that are found within the staging areas as material is moved in and out of these areas. It is possible that as work continues in these staging areas, mice will move away from these sites. Regardless, however, the Service anticipates that "take" will occur, either as a result of harass or harm. After the work is completed, we also anticipate that mice will recolonize the staging areas. There will be no permanent soil disturbance.

Mice may also be affected in the work corridor adjacent to the north jetty. As material is moved to the jetty, mice may be crushed in their burrows. It is possible that as movement continues in the work corridor, mice may temporarily leave this site and return after the work is completed.

Indirect Effects

We have considered indirect effects of this action, and believe indirect effects do not apply in this instance. All effects are direct, storage of material, transporting material, and placement of material on the north jetty.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

The Service has considered cumulative effects with respect to this project and determined they do not apply in this instance.

CONCLUSION

After reviewing the current status of the southeastern beach mouse , the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to jeopardize the continued existence of the southeastern beach mouse. No critical habitat has been designated for this species, therefore, none will be affected.

INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of the Act, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or to attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. "Harm" and "harass" are further defined in Service regulations (50 CFR 17.3). "Harm" is defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. "Harass" is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding or sheltering.

Under the terms of sections 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply.

The Federal agency has a continuing responsibility to regulate the activity that is covered by this incidental take statement. If the agency (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Sections 7(b)(4) and 7(o)(2) of the Act do not apply to the incidental take of listed plant species. However, protection of listed plants is provided to the extent that the Act requires a Federal permit for removal or reduction to possession of endangered plants from areas under Federal jurisdiction, or for any act that would remove, cut, dig up, or damage or destroy any such species on any State or in the course of any violation of a State criminal trespass law.

AMOUNT OR EXTENT OF TAKE

The Service has reviewed the biological information for this species, information presented by the applicant's consultants, and other available information relevant to this action, and based on our review, incidental take is anticipated for all southeastern beach mice within staging areas 1,1A, 2 and 3, and mice that may be found within the work corridor adjacent to the north jetty.

EFFECT OF TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES

The Service is unable to provide reasonable and prudent measures to minimize the level of anticipated take. Trapping and relocation is not possible as the staging areas and work corridor will continue to be accessible to beach mice throughout the life of the project. Once the project is completed; however, mice will recolonize these areas.

REINITIATION

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Sincerely yours,

Don Palmer

for Peter M. Benjamin
Assistant Field Supervisor

cc

Joe Johnston-ES, Atlanta RO
Tom Logan-FWC
Sandy MacPherson

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Department of Environmental Protection

Jeb Bush
Governor

Marjorie Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

In the Matter of an
Application for Permit/Water Quality Certification,
and Authorization to Use Sovereign Submerged Lands by:

APPLICANT:
The Canaveral Port Authority
P.O. Box 267
200 George King Boulevard
Cape Canaveral, FL 32920

PROJECT NAME:
Canaveral Harbor – North Jetty Extension and Permanent Sand Tightening
File No. 0190740-001-JC
Brevard County

CONSOLIDATED NOTICE OF INTENT TO ISSUE JOINT COASTAL PERMIT AND AUTHORIZATION TO USE SOVEREIGN SUBMERGED LANDS

The Department of Environmental Protection gives consolidated notice of its intent to:

(a) issue a joint coastal permit under Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.) for the activity described below (draft copy of permit attached). Issuance of the joint coastal permit also constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341;

(c) grant a public easement to use sovereign submerged lands for the proposed jetty extension, under Article X, Section 11 of the Florida Constitution, Chapter 253, F.S., Title 18, F.A.C., and the policies of the Board of Trustees, as described below.

Where applicable (such as activities in coastal counties), issuance of the joint coastal permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

I. DESCRIPTION OF THE PROPOSED ACTIVITY

The Canaveral Port Authority (CPA), applied on October 12, 2001 to the Department of

Environmental Protection for a permit/water quality certification and authorization to use sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), to sand-tighten and elevate 940 linear feet of the existing north jetty using rock boulders and geo-grid/geo-textile barrier. In addition, the jetty would be extended 300 feet seaward using sheet pile and rock armor. The existing interim sand-tightening structure along the north jetty (550 ft long of sand filled geotextile tubes) will be removed. The placement of the rock boulders along the existing jetty would be performed by land-based equipment such as back-hoe and front-loader or by barge.

The activity includes consideration of an application for a sovereign submerged lands easement containing 24,200 square feet, more or less.

The activity is located at the North Jetty of Port Canaveral Inlet, South of Cape Canaveral, Florida, Brevard County, Section 12, Township 24 South, Range 37 East, in the Atlantic Ocean, Class III Waters.

II. AUTHORITY FOR REVIEW

The Department has permitting authority under Chapter 161 and Part IV of Chapter 373, F.S., and Chapters 62B-41, 62B-49 and 62-343, F.A.C. The activity qualifies for processing as a joint coastal permit pursuant to Sections 161.055 and 373.4145, F.S. Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing this application.

The activity also requires a proprietary authorization, as it is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund. The activity is not exempt from the need to obtain a proprietary authorization. Pursuant to Article X, Section 11 of the Florida Constitution, Sections 253.002 and 253.77, F.S., Sections 18-21.0040, 18-21.0051, 62-343.075, F.A.C., the policies of the Board of Trustees, and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department has the responsibility to review and take final action on this request for proprietary authorization.

III. BACKGROUND/BASIS FOR ISSUANCE

A. General

The existing north jetty at Canaveral harbor, Florida, was constructed in 1954 in association with initial improvements to the harbor and port. It is a granite rubble-mound structure that has in time acted as a barrier to the southward littoral movement of sand. The existing north jetty has a varying crest elevation of about +4 to +6 feet MLW along its length, none of which is sand-tightened. The typical beach profile to the immediate north of the jetty has an elevation of

between +8 to +10 feet MLW for the berm and backshore, respectively. This difference in elevation between the beach and existing jetty has resulted in transport of material over the jetty, in addition to transport through the porous jetty stone and around the seaward tip. The north jetty was sand-tightened in 1998. The interim sand tightening was an experimental method consisting of sand filled geotextile tubes placed parallel and north of the existing jetty centerline. Surveys indicate that the interim sand tightening has been successful in impounding southward moving beach material to the maximum possible extent with an estimated 15,000 cubic yards contained. Permanent sand tightening and north jetty extension will prevent sand transport over and around the jetty and improve sand management at the harbor entrance.

Previous inlet sand management strategies entailed dredging sand accumulated in the inlet channel. With the proposed jetty tightening and extension, inlet sand management will be accomplished through a sand bypassing strategy that entails dredging of the federally owned beach and nearshore reaches north of the north jetty and placement of dredged material to the beaches south of the inlet.

Consultation with the Florida Fish and Wildlife Conservation Commission relating to impacts to threatened or endangered species revealed no adverse impacts associated with the proposed project.

B. Specific Regulatory Basis for Issuance

Through the above and based on the general/limiting and specific conditions to the permit, the applicant has provided affirmative reasonable assurance that the construction of the activity, considering the direct, secondary and cumulative impacts, will comply with the provisions of Part IV of Chapter 373, F.S., and the rules adopted thereunder. Specifically, construction of the activity will not result in violations of water quality standards pursuant to Section 373.414(1), F.S., and set forth in Chapters 62-4, 62-302, 62-520, 62-522, and 62-550, F.A.C. The applicant also has demonstrated that the construction of the activity, including consideration of direct, secondary, and cumulative impacts, is not contrary to the public interest, pursuant to paragraph 373.414(1), F.S.

Furthermore, after considering the merits of the proposal and any written objections from affected persons, the Department finds that on compliance with the permit conditions, the activities indicated in the project description are of such a nature that they will result in no significant adverse impacts to the sandy beaches of the state; are not expected to adversely impact nesting sea turtles, their hatchlings, or their habitat; will not interfere, except during construction, with the use by the public of any area of the beach seaward of mean high water; and are appropriately designed in accordance with Rule 62B-41, F.A.C.

C. Specific Proprietary Basis for Issuance

Through the above and based on the general/limiting and specific conditions to the public

easement, the applicant has met all applicable requirements for proprietary authorizations to use sovereign submerged lands, pursuant to Article X, Section 11 of the Florida Constitution, Chapter 253, F.S., and associated Rule 18-21, F.A.C., and the policies of the Board of Trustees. The applicant has provided reasonable assurance that the activity:

(1) is "not contrary to the public interest"
(2) will maintain essentially natural conditions;
(3) will not cause adverse impacts to fish and wildlife resources or public recreation or navigation; and
(4) will not interfere with the riparian rights of adjacent property owners.

In addition, the project is consistent with the goals and objectives of the "Conceptual State Lands Management Plan" adopted by the Board of Trustees on March 17, 1981, and modified on March 15, 1983.

IV. PUBLICATION OF NOTICE

The Department has determined that the proposed activity, because of its size, potential effect on the environment or the public, controversial nature, or location, is likely to have a heightened public concern or likelihood of request for administrative proceedings. Therefore, pursuant to Section 373.413(4), F.S., and paragraph 62-312.060(14), F.A.C., you (the applicant) are required to publish at your own expense the enclosed notice of this Consolidated Notice of Intent to Issue. The notice is required to be published one time within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to:

Department of Environmental Protection
Bureau of Beaches and Wetland Resources
3900 Commonwealth Boulevard, Mail Station 300
Tallahassee, Florida 32399-3000

The proof of publication shall be provided to the above address within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time shall be grounds for denial of the permit and authorization to use sovereign submerged lands.

V. RIGHTS OF AFFECTED PARTIES

The Department will issue the permit (draft attached) and intent to grant an easement on sovereign submerged lands unless a sufficient petition for an administrative hearing is timely filed pursuant to sections 120.569 and 120.57, Florida Statutes, as provided below. The procedures for petitioning for a hearing are set forth below. The actual terms of the easement will be formally executed at a later date. Mediation under Section 120.573, F.S., is not available

for this proceeding.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Because the administrative hearing process is designed to redetermine final agency action on the application, the filing of a petition for an administrative hearing may result in a modification of the permit or even a denial of the application.

Under rule 62-110.106(4), Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

In the event that a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Any intervention will be only at the discretion of the presiding judge upon the filing of a motion in compliance with rule 28-106.205, F.A.C.

In accordance with rules 28-106.111(2) and 62-110.106(3)(a)(1), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first.

Under section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, F.S.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301, F.A.C. Under sections 120.569(2)(c) and (d), F.S., a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

This intent to issue constitutes an order of the Department. The applicant has the right to seek judicial review of the order under section 120.68, F.S., by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For Michael Sole, Chief
Bureau of Beaches and Wetland Resources
Division of Water Resource Management

Copies furnished to:
Kevin Bodge, Olsen & Associates
Connie Evans, The Canaveral Port Authority
George Gionis, DEP, Central District Office
Robbin Trindell, FWCC, BPSM
FWC-Division of Law Enforcement
Irene Sadowski, U. S. Army Corps of Engineers
BBWR Permit Information Center
BBWR File

FILING AND ACKNOWLEDGMENT

FILED, on this date with the designated Department Clerk, pursuant to Section 120.52, Florida Statutes, receipt of which is hereby acknowledged.

Monica N. House
Deputy Clerk

7/31/02
Date

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND INTENT TO GRANT SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE/AUTHORIZED ENTITY:	Permit No.: 0190740-001-JC
The Canaveral Port Authority	**Date of Issue: July 31,2002**
	Expiration Date: July 31, 2007
	County: Brevard
	Project: Canaveral Harbor – North Jetty Extension and Permanent Sand Tightening

This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62 and 40, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

ACTIVITY DESCRIPTION:

The permittee is authorized to sand-tighten and elevate 940 linear feet of the existing north jetty using rock boulders and geo-grid/geo-textile barrier. In addition, the jetty would be extended 300 feet seaward using sheet pile and rock armor. Existing interim sand-tightening structure along the north jetty (550 ft long of sand filled geotextile tubes) will be removed. The placement of the rock boulders along the existing jetty would be performed by land-based equipment such as back-hoe and front-loader or by barge.

ACTIVITY LOCATION:

Located south of Cape Canaveral, at the North Jetty of Canaveral Inlet, Brevard County, Section 12, Township 24 South, Range 37, in the Atlantic Ocean, Class III Waters.

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act. This permit also constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. In

addition to the above, this proprietary authorization has been reviewed in accordance with Chapter 253, F.S., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the activity requires a Public Easement for the use of those lands, pursuant to Chapter 253.77, F.S. The Department intends to issue the Easement, subject to the conditions in the previously issued Consolidated Intent to Issue.

The final documents required to execute the Easement have been sent to the Division of State Lands. The Department intends to issue the Easement, upon satisfactory execution of those documents. **You may not begin construction of this activity on state-owned, sovereign submerged lands until the Easement has been executed to the satisfaction of the Department.**

A copy of this authorization has been sent to the U. S. Army Corps of Engineers (USACOE) for review. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof. **This permit and authorization to use sovereign submerged lands is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the General Conditions and Specific Conditions, which are a binding part of this permit and authorization.** You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department

permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonable necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and

b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any

and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500).

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;

3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Florida Administrative Code Rule 18-14.002(1), if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to $10,000 per offense.

2. If historical or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time within the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department's District Office and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250.

3. At least 48 hours prior to commencement of work authorized by this permit, the permittee shall provide written notification of the date of the commencement and proposed schedule of construction. All documents relating to the permit shall be sent to the DEP Bureau of Beaches and Wetland Resources, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000, and to the DEP Central District Office, Submerged Lands and Environmental Resources Program, 3319 Maguire Blvd., Suite 232, Orlando, Florida 32803-3767.

4. The terms, conditions, and provisions of the required easement shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all easement documents have been executed to the satisfaction of the Department.

5. No construction, operation, transportation or storage of equipment or materials are authorized on the sandy beach during the marine turtle nesting season (1 May through 31 October).

6. During the marine turtle nesting season, all construction activities at the project site shall be limited to daylight hours only, from sunrise to sunset. All safety or security lighting of barges and equipment shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination, while meeting all U.S. Coast Guard and OSHA requirements. Shielded low-pressure sodium vapor lights are highly recommended for lights on the beach and on offshore equipment that cannot be eliminated.

7. The contractor will be required to mark and avoid all nests laid within a 500-foot area north of the work corridor adjacent to the north jetty. All nests laid within the work corridor just north of and adjacent to the north jetty will be relocated by a qualified and permitted biologist.

8. The contractor will not conduct nighttime activities at the staging areas, the work corridor adjacent to the north jetty or on the north jetty.

9. In order to be exempt from the prohibitions of section 9 of the Endangered Species Act, the permittee must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

a) The contractor will flag the work corridor just north of and adjacent to the north jetty, and notify the Corps and the Service that it has been accomplished prior to initiating work. The contractor shall submit to the Corps and Service an aerial photograph outlining the work corridor for our review and possible site inspection. The size of the work corridor should be restricted to the absolute minimum necessary to insure worker safety. All work vehicles, storage of equipment, and moving material to the north jetty shall only occur in this work corridor.

b) From March 1 through November 30, construction activities must be conducted during daylight hours only to avoid encountering nesting females and emerging hatchling sea turtles. Construction activities must not occur in any location prior to completion of the necessary sea turtle protection measures outlined below. The Corps will stipulate in the contract that no nighttime activity, including the use of artificial lighting, is to occur relative to this project, including the staging areas, work corridor, and the jetty.

c) Daily early morning surveys for sea turtle nests will be required if any portion of the jetty construction project occurs during the period from March 1 through November 30. No construction activity may commence until completion of the sea turtle nesting survey each day.

1) Nesting surveys must be initiated 65 days prior to jetty construction activities or by March 1, whichever is later. Nesting surveys must continue through the end of the project or through September 30, whichever is earlier.

2) If nests are deposited within the work corridor just north of and adjacent to the north jetty, and area where they may be affected by construction activities, eggs must be relocated per the following requirements.

i) Nesting surveys and egg relocations will only be conducted by personnel with prior experience and training in nesting survey and egg relocation procedures. Surveyors must have a valid Florida Fish and Wildlife Conservation Commission permit. Nesting surveys must be conducted daily between sunrise and 9 a.m. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures.

ii) Only those nests that may be affected by construction activities will be relocated. Nests requiring relocation must be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Nest relocations in association with construction activities must cease when construction activities no longer threaten nests.

3) If nests are deposited within a 500-foot area north of the work corridor, they must be marked and left in place unless other factors threaten the success of the nest. Any nests left in the vicinity of the jetty construction area must be clearly marked. Nests will be marked and the actual location of the clutch determined. A circle with a radius of 10 feet, centered at the clutch, will be marked by stake and survey tape or string. No construction activities will enter this circle and no adjacent construction that might directly or indirectly disturb the area within the staked circle will be allowed.

10. Best Management practices (BMPs) for turbidity control shall be implemented at all times during construction and piling installation to prevent turbidity in excess of 29 NTUs above background levels beyond the edge of a 150-meter mixing zone, pursuant to Chapter 62-302, F.A.C. BMP methods may include, but are not limited to, the use of turbidity screens around the immediate project area and staged construction (breaks) to allow turbidity to remain at acceptable levels.

11. All construction debris, damaged jetty sections, parts of geotextile tubes and waste materials shall be discarded in an approved upland disposal area landward of the established coastal construction control line.

12. In order to ensure that manatees are not adversely affected by the construction activities authorized by this permit, the permittee shall adhere to the following conditions:

a. The permittee/contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence

of manatee(s), and shall implement appropriate precautions to ensure protection of the manatee(s).

b. The permittee/contractor shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The permittee and/or contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.

c. Prior to commencement of construction, the prime contractor involved in the construction activities shall construct and display at least two temporary signs (placards) concerning manatees. For all vessels, a temporary sign (at least 8.5" X 11") reading **"Manatee Habitat/Idle Speed In Construction Area"** will be placed in a prominent location visible to employees operating the vessels. In the absence of a vessel, a temporary sign (at least 2' X 2') reading **"Caution: Manatee Area"** will be posted in a location prominently visible to land based, water-related construction crews.

d. A second temporary sign (at least 8.5" X 11") reading **"Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of the operation. A collision with and/or injury to a manatee shall be reported immediately to the Florida Marine Patrol at 1-800-404-FWCC (1-800-404-3922) and the U. S. Fish and Wildlife Service at (1-904-232-2580) for north Florida or (1-561-562-3909) for south Florida."** will be located prominently adjacent to the displayed issued construction permit. Temporary notices are to be removed by the permittee upon completion of construction.

e. Siltation barriers shall be properly secured so that manatees cannot become entangled, and monitored at least daily to avoid manatee entrapment. Barriers shall not block manatee entry to or exit from essential habitat.

f. All vessels associated with the project shall operate at "no wake/idle speed" at all times while in the construction area and while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.

g. If a manatee(s) is seen within 100 yards of the active daily construction/dredging operation, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities shall not resume until the manatee(s) has departed the project area of its own volition.

h. Any collision with and/or injury to a manatee shall be reported immediately to the "Manatee Hotline" at 1-800-404-FWCC (1-800-404-3922). **Collision and/or injury**

should also be reported to the U. S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) for south Florida.

i. The contractor shall maintain a log detailing sightings, collisions, or injuries to manatees should they occur during the contract period. A report summarizing incidents and sightings shall be submitted to the FWCC Bureau of Protected Species Management, 620 South Meridian Street, Tallahassee, Florida 32399-1600 and to the U. S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, Florida 32216-0912. This report must be submitted within 90 days of completion of the activities conducted in accordance with the permit.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For Michael Sole, Chief,
Bureau of Beaches and Wetland Resources
Division of Wetland Resource Management

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Monica R. Horse 7/31/02
Deputy Clerk Date

Prepared by Vladimir N. Kosmynin, Ph.D., Environmental Specialist

9 pages attached.